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3 HIGH-SPEED SUPERCAVITATING UNDERWATER VEHICLE
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5 ABSTRACT OF THE DISCLOSURE

6 A high-speed supercavitating underwater vehicle includes an
7 elongated hull of circular cross section, the hull having a
8 cavitator at a forward end thereof and means for ventilating gas
9 to form a cavity around the hull in underwater travel. An
10 expandable annular skirt is fixed on the hull and is provided
11 with an outer surface proximate an outer surface of the hull.
12 The skirt is expandable to increase a diameter of the skirt from
13 proximate a diameter of the hull to proximate a diameter of the
14 cavity to define an annular gas film between the expanded skirt
15 and a boundary of the cavity. The expanded skirt acts to
16 substantially reduce the flow of gas from a forward high pressure
17 zone of gas to an after low pressure zone of gas.